

Amendments to and Listing of the Claims:

Please cancel claims 85, 86, 88, 89 and 91, without prejudice, and amend claims 87, 90, 99, 123, and 124, so that the claims read as set forth in the following claim listing that includes all of the claims pending upon entry of this amendment:

1-86. (Canceled)

87. (Currently amended) ~~The composition of claim 86~~An antimicrobial composition comprising a substantially purified eukaryotic histone H1 protein which exhibits antibiotic activity and interacts with a cell membrane of a microorganism and changes or disrupts the cell membrane, whereby at least one of death of the microorganism and inhibition of growth of the microorganisms is induced, wherein the histone H1 protein is covalently linked with polyethylene glycol.

88. (Canceled)

89. (Canceled)

90. (Currently amended) ~~The composition of claim 89~~An antimicrobial composition comprising a eukaryotic histone H1 protein which exhibits antibiotic activity and interacts with a cell membrane of a microorganism and changes or disrupts the cell membrane, whereby at least one of death of the microorganism and inhibition of growth of the microorganisms is induced, and further comprising a second antimicrobial composition comprising an antibiotic selected from the group consisting of histone H2A, histone H2B, histone H3, histone H4, histone H5, penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin, wherein any of the penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin is in a form selected from the group consisting of a salt and an ester.

91. (Canceled)

92. (Previously Presented) An antimicrobial composition comprising a eukaryotic histone H1 protein and lysozyme.

93. (Previously Presented) The composition of claim 92, wherein the histone H1 protein is substantially purified.

94. (Previously Presented) The composition of claim 93, wherein the histone H1 protein is covalently linked with polyethylene glycol.

95. (Previously Presented) The composition of claim 92, further comprising a second antimicrobial composition.

96. (Previously Presented) The composition of claim 95, wherein the second antimicrobial composition comprises an antibiotic selected from the group consisting of histone H2A, histone H2B, histone H3, histone H4, histone H5, penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin.

97. (Previously Presented) The composition of claim 96, wherein any of the penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin is in a form selected from the group consisting of a salt and an ester.

98. (Previously Presented) A kit comprising the composition of claim 97 in the form of a material selected from the group consisting of a tablet, a hard or soft capsule, a cachet, a troche, a lozenge, a powdered formulation, a granular formulation, an aqueous solution, an aqueous suspension, an oily solution, an oily suspension and an emulsion, each material containing a predetermined amount of the histone H1 protein.

99. (Currently Amended) The kit of claim 98, wherein the composition is included in ~~the form of~~ a wound dressing.

100. (Previously Presented) A personal care product supplemented with an antimicrobial composition comprising a eukaryotic histone H1 protein.

101. (Previously Presented) The personal care product of claim 100, wherein the histone H1 protein is substantially purified.

102. (Previously Presented) The personal care product of claim 101, wherein the histone H1 protein is covalently linked with polyethylene glycol.

103. (Previously Presented) The personal care product of claim 100, further comprising a second antimicrobial composition.

104. (Previously Presented) The personal care product of claim 103, wherein the second antimicrobial composition comprises an antibiotic selected from the group consisting of

histone H2A, histone H2B, histone H3, histone H4, histone H5, penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin.

105. (Previously Presented) The personal care product of claim 104, wherein any of the penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin is in a form selected from the group consisting of a salt and an ester.

106. (Previously Presented) The personal care product of claim 100, selected from the group consisting of a cream, a lotion, a deodorant, a lipstick, a toothpaste, a tooth powder, a dental floss, a mouthwash, a sanitary napkin, a vaginal tampon and an insole.

107. (Previously Presented) A medical device comprising an antimicrobial composition comprising a eukaryotic histone H1 protein.

108. (Previously Presented) The medical device of claim 107, wherein the histone H1 protein is substantially purified.

109. (Previously Presented) The medical device of claim 108, wherein the histone H1 protein is covalently linked with polyethylene glycol.

110. (Previously Presented) The medical device of claim 107, further comprising a second antimicrobial composition.

111. (Previously Presented) The medical device of claim 110, wherein the second antimicrobial composition comprises an antibiotic selected from the group consisting of histone H2A, histone H2B, histone H3, histone H4, histone H5, penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin.

112. (Previously Presented) The medical device of claim 111, wherein any of the penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin is in a form selected from the group consisting of a salt and an ester.

113. (Previously Presented) The medical device of claim 107 wherein the antimicrobial composition is linked to a surface of the medical device.

114. (Previously Presented) The medical device of claim 107 wherein the antimicrobial composition is contained in and released from the medical device.

115. (Previously Presented) The medical device of claim 107, selected from the group consisting of a surgical implant, a catheter, an intravenous pump, a wound dressing, a plaster, a sanitary napkin and a vaginal tampon.

116. (Previously Presented) The medical device of claim 107, wherein the device is a titanium implant having a portion of its surface chemically modified and comprising histone H1 protein.

117. (Previously Presented) A medical device of claim 107 comprising a coated surface containing histone H1 protein.

118. (Previously Presented) A medical device of claim 107 comprising a coupling group on the surface of the device for covalently or electrostatically linking the histone H1 protein to the surface.

119. (Previously Presented) A medical device of claim 107, wherein the device comprises a coating with a composition comprising the histone H1 protein and at least one of a synthetic polymer and a polymer containing a biological macromolecule.

120. (Previously Presented) A wrap of synthetic polymer for perishable food, the wrap comprising an antimicrobial composition comprising a eukaryotic histone H1 protein.

121. (Previously Presented) The wrap of claim 120, wherein the histone H1 protein is substantially purified.

122. (Previously Presented) The wrap of claim 120, further comprising a second antimicrobial composition.

123. (Currently Amended) The ~~medical device~~ wrap of claim 122, wherein the second antimicrobial composition comprises an antibiotic selected from the group consisting of histone H2A, histone H2B, histone H3, histone H4, histone H5, penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin.

124. (Currently Amended) The ~~medical device~~ wrap of claim 123, wherein any of the penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol,

chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline and norfloxacin is in a form selected from the group consisting of a salt and an ester.

125. (Previously Presented) The wrap of claim 120, wherein the histone H1 protein is covalently linked to anchoring groups of at least one synthetic polymer containing or forming the wrap.

126. (Previously Presented) The wrap of claim 120 comprising a coupling group on the surface of the wrap covalently-linked with the histone H1 protein.